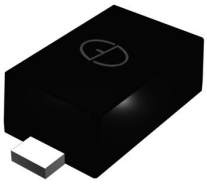
SOD-523Plastic-Encapsulate Diode

Features

- Small surface mounting type
- High speed
- High reliability with high surge Current handing capability

RoHS COMPLIANT



Marking: A **SOD-523**

Mechanical Data

- SOD-523 small outline plastic package
- Polarity: color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting position: any

Maximum Ratings& Thermal Characteristics (T_A=25°C unless otherwise noted)

Parameters	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	90	V
DC Blocking Voltage	V_R	80	V
Power Dissipation	P_D	150	mW
Junction temperature	T_J	150	℃
Storage temperature range	T_{STG}	-55-+150	℃
Average Rectified Current	I_O	100	mA
Non-repetitive Peak Forward Current	I_{FM}	225	mA
Non-repetitive Peak Forward SurgeCurrent@t= 8.3ms	I_{FSM}	2.0	A
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	℃/W

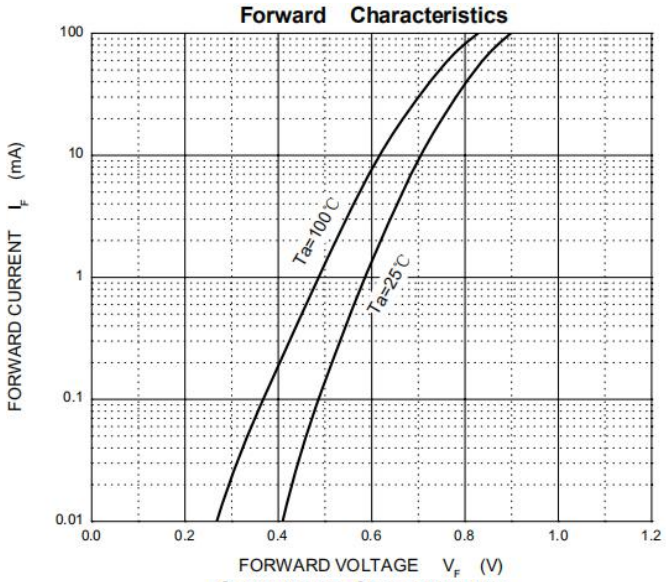
Valid provided that electrodes are kept at ambient temperature.

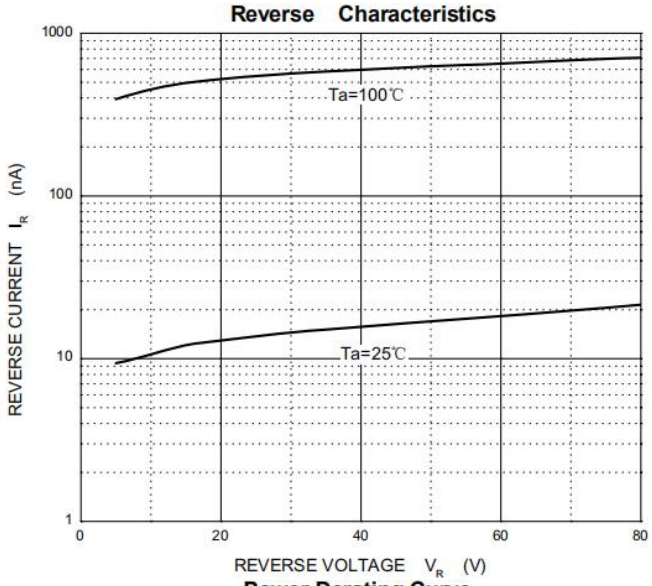
Electrical Characteristics (T_A=25°C unless otherwise noted)

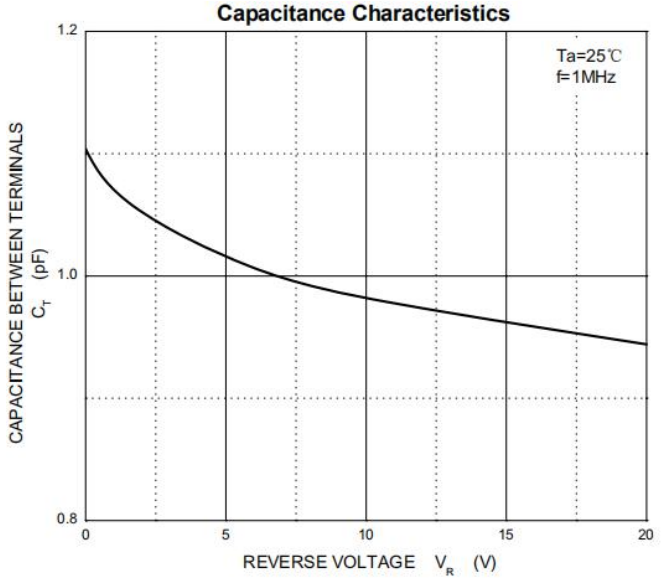
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Forward Voltage	V_F	IF=100mA		1.20	V
Reverse Leakage Current	I_R	VR=80V		0.1	uA
Reverse Recovery Time	T_{RR}	IF= 10mA, VR=6V RL=100Ω		4	nS
Capacitance	C_J	VR=0.5V, f=1MHZ		3	pF

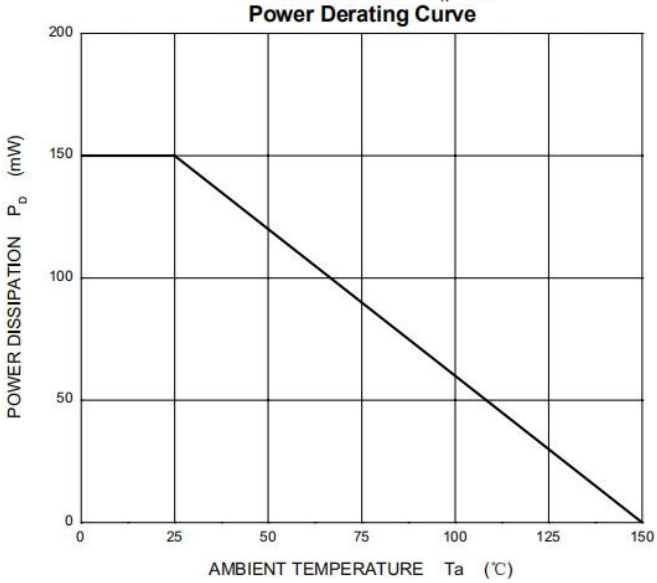
Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)



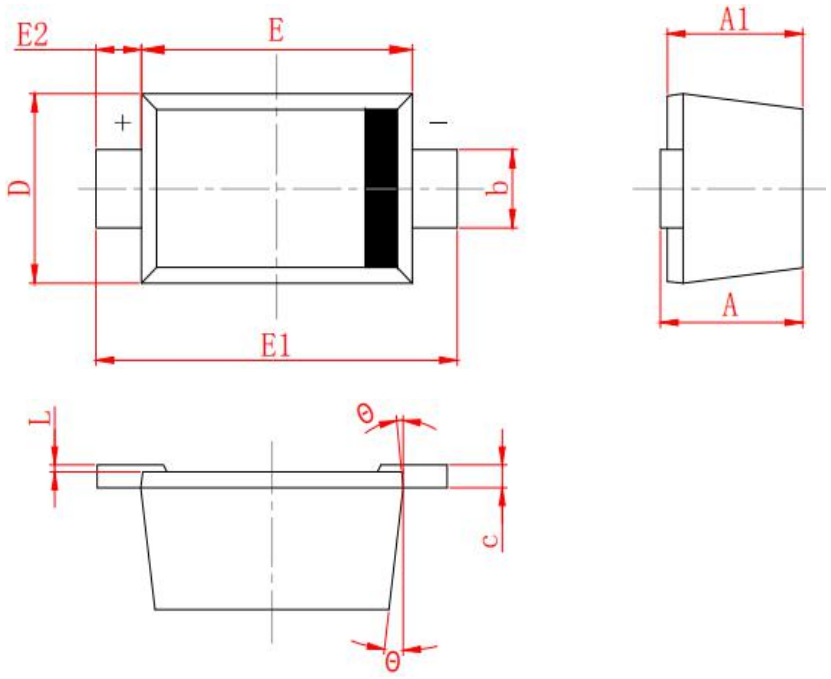






Package Outline Dimensions

in inches (millimeters)



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
θ	7° REF	

Revision History

Document Version	Date of release	Description of changes
Rev.A	2020.07.21	First issue

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